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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Noriyoshi Sato

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EXAMINER

SHEDRICK, CHARLES TERRELL

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

12/15/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/576,630	Applicant(s) SATO ET AL.	
	Examiner CHARLES SHEDRICK	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-18 and 20-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-18 and 20-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/16/09 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 18 is objected to because of the following informalities: refers to the folded and should refer to an unfolded state as noted by claimed dependency.

4. Claims 22-24 should refer to the connecting device of claim 20 not an Electronic apparatus. Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2617

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims **14-18 and 20-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson US Patent Pub. No.: 2003/0114184 in view of Read et al. et US Patent No.: 5,890,052, hereinafter, 'Read'

Consider **claim 14**, Wilson teaches a connecting device comprising: a bendable member which has enough restoring force and rigidity to restore a bent state to an unbent state and foldably connects two housing portions separated from each other by a predetermined distance (e.g., see bendable members 30 and noted in at least figures 3-4 and also paragraphs 0006, 0025 and 0026); wherein the bendable has an arc shape in sectional view perpendicular to a direction in which the bendable member bridges the two housing portions while the two housing

Art Unit: 2617

are in an unfolded state (e.g., see paragraphs 0009, 0024 and figure 3, 4a-4d)(i.e., Wilson teaches that each strap 30 is generally rectangular in shape and has a central substantially oval embossed or depressed region 33 to provide additional strength and rigidity thereto).

However, Wilson does not teach a sheet shaped member covering the bendable member and the two housing portions.

In analogous art, Read teaches a sheet shaped member covering the bendable member and the two housing portions (e.g., foldable wallet illustrated in at least figure 1-5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Wilson to include a sheet shaped member covering the bendable member and the two housing portions. Both Wilson and Read teach foldable mobile phones. Read teaches a desire to consolidate a mobile device into a wallet and therefore provide a convenient advantage. Accordingly it would have been obvious to one of ordinary skill in the art to combine the mobile phone of Wilson with Read for convenient advantages and possibly reducing bulk as taught by Read.

Consider **claim 15**, Wilson teaches a connecting device comprising: and a bendable member which has enough restoring force and rigidity to restore a bent state to an unbent state and foldably connects two housing portions so as to be overlapped with the two housing portions (e.g., see bendable members 30 and noted in at least figures 3-4 and also paragraphs 0006, 0025 and 0026), wherein the bendable member has an arc shape in section view perpendicular to a direction in which the bendable member bridges the two housing

Art Unit: 2617

portions while the two housings are in an unfolded state (e.g., see paragraphs 0009, 0024 and **figure 3, 4a-4d**).

However, Wilson does not teach a joint members having flexibility on which two housing portions are fixed at a predetermined gap and the joint member covers the bendable member and the two housing portions.

In analogous art, Read teaches a joint members having flexibility on which two housing portions are fixed at a predetermined gap and the joint member covers the bendable member and the two housing portions (e.g., **foldable wallet illustrated in at least figure 1-5**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Wilson to include a joint members having flexibility on which two housing portions are fixed at a predetermined gap and the joint member covers the bendable member and the two housing portions. Both Wilson and Read teach foldable mobile phones. Read teaches a desire to consolidate a mobile device into a wallet and therefore provide a convenient advantage. Accordingly it would have been obvious to one of ordinary skill in the art to combine the mobile phone of Wilson with Read which would predictably yield the result of the joint member covers the bendable member and the two housing portions for convenient advantages and possibly reducing bulk as taught by Read.

Consider **claim 25**, Wilson teaches a folding portable terminal apparatus comprising: an upper housing portion which has a display unit provided therein (e.g., see **figure 1 and display unit 7**); a lower housing portion which has an operating unit provided therein (e.g., **microphone 11 of figure 1**); and a connecting portion which foldably connects the upper housing portion and

Art Unit: 2617

the lower housing portion(e.g., see **bendable members 30 and noted in at least figures 3-4 and also paragraphs 0006, 0025 and 0026**), wherein the connecting portion includes a plurality of connecting plates each having a curved portion that is curved on an axis parallel to a direction in which the connecting plate bridges the two housing portions while the two housings are in an unfolded state (e.g., see **bendable members 30 and noted in at least figures 3-4 and also paragraphs 0006, 0025 and 0026**).

However, Wilson does not teach a cover which covers the upper housing, the lower housing, and the connecting portion.

In analogous art, Read teaches a cover which covers the upper housing, the lower housing, and the connecting portion (e.g., **foldable wallet illustrated in at least figure 1-5**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Wilson to a cover which covers the upper housing, the lower housing, and the connecting portion. Both Wilson and Read teach foldable mobile phones. Read teaches a desire to consolidate a mobile device into a wallet and therefore provide a convenient advantage. Accordingly it would have been obvious to one of ordinary skill in the art to combine the mobile phone of Wilson with Read which would predictably yield the result of a cover which covers the upper housing, the lower housing, and the connecting portion for convenient advantages and possibly reducing bulk as taught by Read.

Consider **claims 16 and 17 and as applied to claims 14 and 15**, Wilson as modified by Read teaches wherein the bendable member is attached to the two housing portions (e.g., see **figure 3**), with a longitudinal concave portion thereof oriented in a direction parallel to a

Art Unit: 2617

direction in which the two housing portions are folded (**i.e., the straps 30 are made of metal is generally rectangular in shape and has a central substantially oval embossed or depressed region 33 to provide additional strength and rigidity thereto**)(e.g., see paragraphs 0024-0025 and respective figures).

Consider **claim 18 and as applied to claim 15**, Wilson teaches the claimed invention except wherein the joint members has a folding force generating means for generating folding force to hold a folded state of the housing portions at a substantially central region thereof corresponding to the gap between the two housing portions.

In analogous art, Read teaches wherein the joint members has a folding force generating means for generating folding force to hold a folded state of the housing portions at a substantially central region thereof corresponding to the gap between the two housing portions (**i.e., external or material force-the wallet has a foldable region that enables the two parts of the telephone to be changed in angle – col. 2 lines 15-20**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Wilson to include the joint members has a folding force generating means for generating folding force to hold a folded state of the housing portions at a substantially central region thereof corresponding to the gap between the two housing portions. Read teaches a desire to consolidate a mobile device into a wallet and therefore provide a convenient advantage. Accordingly it would have been obvious to one of ordinary skill in the art to combine the mobile phone of Wilson with Read which would predictably yield the result of the joint members has a folding force generating means for generating folding force to hold a folded state of the housing portions at a substantially central region thereof corresponding to the

Art Unit: 2617

gap between the two housing portions for convenient advantages and possibly reducing bulk as taught by Read.

Consider **claim 21**, Wilson as modified by Read teaches two housing portions (**e.g., 3 and 4 of figure 1**); and the connecting device **according to claim 14** that foldably connects the two housing portions (**e.g., see 30 of figure 3**).

Consider **claim 26**, Kauhaniemi as modified by Wilson teaches wherein folding portable terminal apparatus according to **claim 25**, wherein the plurality of connecting plates overlap each other (**e.g., in the folded state the plates overlap as illustrated in at least figure 3**).

Consider **claim 27 and as applied to claim 14**, Wilson as modified by Read teaches wherein the bendable member extends in a single straight line from one of the two housing portions to the other housing portion (**e.g., open position - see figures 4a and flattened version of strap in 4d**).

Consider **claim 28 and as applied to claim 27**, Wilson as modified by Read teaches wherein the bendable member has substantially gutter shape in a connecting direction thereof (**i.e., the straps 30 are made of metal is generally rectangular in shape and has a central substantially oval embossed or depressed region 33 to provide additional strength and rigidity thereto**)(**e.g., see paragraphs 0024-0025 and respective figures**)

Consider **claims 29-30 and 32 and as applied to claims 14-15 and 25**, Wilson as modified by Read teaches wherein the sectional view of a central portion of the bendable member has a linear shape when the two housings are in a folded state(**i.e., the straps 30 are made of metal is generally rectangular in shape and has a central substantially oval embossed or depressed region 33 to provide additional strength and rigidity thereto**)(**e.g.,**

Art Unit: 2617

see paragraphs 0024-0025 and respective figures- the folded state would cause a deformation of the oval resulting in a substantially linear shape)

Consider claims 33-34 and 36 and as applied to claims 14-15 and 25, Wilson as modified by Read teaches an edge of the bendable member is inclined to a surface of one of the two housing portions while the two housings are in the unfolded state(Wilson indicates in at least paragraph 0026 that it will be appreciated that the straps 30 also control the angle to which the cover 4 may open. Generally, an angle between the cover and the housing of 130 degrees is preferred (i.e., $180^\circ - 130^\circ = 50^\circ$ Deg. Incline).

Consider claims 37-38 and 40 and as applied to claims 14-15 and 25, Wilson as modified by Read teaches wherein the bendable member has the arc-shaped cross section (i.e., the straps 30 are made of metal is generally rectangular in shape and has a central substantially oval embossed or depressed region 33 to provide additional strength and rigidity thereto)(e.g., see paragraphs 0024-0025)

Claims **20, 22, 31, 35, 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson US Patent Pub. No.: 2003/0114184 in view of Read et al. US Patent No.: 5,890,052, hereinafter, 'Read' and further in view of Holtorf et al. US Patent No.: 7,251, 323

Consider **claim 20**, Wilson teaches a connecting device comprising: a connecting portion which foldably connects two housing portions (e.g., **housing portions 3 and 4 of figure 3**), wherein said connecting portion comprises a bendable member(e.g., **bendable members 30**), and wherein the bendable member has a curved shape in a sectional view perpendicular to a direction in which the bendable member bridges the two housing portions while the two housings

Art Unit: 2617

are in an folded state a connecting direction thereof and a receiving antenna (**23 of figure 2**) which is connected to one of the two housing portions (e.g., see paragraphs **0009, 0024 and figure 3, 4a-4d**)(i.e., **Wilson teaches that each strap 30 is generally rectangular in shape and has a central substantially oval embossed or depressed region 33 to provide additional strength and rigidity thereto**);

However, Wilson does not specifically teach a flexible wiring member which connects the two housing portions such that they can communicate with each other; wherein the connecting portion covers the flexible wiring member and the receiving antenna

In analogous art, Read teaches a flexible wiring member which connects the two housing portions such that they can communicate with each other (i.e., **flexible cable 32**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Wilson to include a flexible wiring member which connects the two housing portions such that they can communicate with each other. Read teaches a desire to consolidate a mobile device into a wallet and therefore provide a convenient advantage. Accordingly it would have been obvious to one of ordinary skill in the art to combine the mobile phone of Wilson with Read which includes a flexible wiring member which connects the two housing portions such that they can communicate with each other as taught by Read.

However Wilson as modified by Read do not specifically teach wherein a connecting portion covers the flexible wiring member and the receiving antenna.

In analogous art, Holtorf teaches wherein the connecting portion covers the flexible wiring member and the receiving antenna (e.g., **730 may comprise transmitting and receiving**

Art Unit: 2617

antenna and facilitating various internal electrical connections - two connection portion cover 730 of figure 7).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Wilson as modified by Read to include wherein the connecting portion covers the flexible wiring member and the receiving antenna for the purpose of communicating information in a fold apparatus as taught by Holtorf.

Consider **claim 22 and as applied to claim 20**, Wilson as modified by Read and further modified by Holtorf teaches the claimed invention further comprising; a display unit that is provided in one of the two housing portions (e.g., **the display unit 7 of figure 1**); and an operating unit that is provided in the other housing portion (e.g., **the microphone 11 of figure 1**), wherein, when the two housing portions are in a folded state, the display unit and the operating unit are arranged opposite to each other (e.g., **see figure 1**).

Consider claim 31 and as applied to claim 20 , Wilson as modified by Read and further modified by Holtorf teaches wherein the sectional view of a central portion of the bendable member has a linear shape when the two housings are in a folded state(**i.e., the straps 30 are made of metal is generally rectangular in shape and has a central substantially oval embossed or depressed region 33 to provide additional strength and rigidity thereto**)(e.g., **see paragraphs 0024-0025 and respective figures- the folded state would cause a deformation of the oval resulting in a substantially linear shape**)

Consider claim 35 and as applied to claim 20 , Wilson as modified by Read and further modified by Holtorf teaches an edge of the bendable member is inclined to a surface of one of the two housing portions while the two housings are in the unfolded state(**Wilson indicates in**

Art Unit: 2617

at least paragraph 0026 that it will be appreciated that the straps 30 also control the angle to which the cover 4 may open. Generally, an angle between the cover and the housing of 130 degrees is preferred (i.e., 180 Flat -130 = 50 Deg. Incline).

Consider claim 39 and as applied to claim 20 , Wilson as modified by Read and further modified by Holtorf teaches wherein the bendable member has the arc-shaped cross section (i.e., the straps 30 are made of metal is generally rectangular in shape and has a central substantially oval embossed or depressed region 33 to provide additional strength and rigidity thereto)(e.g., see paragraphs 0024-0025)

Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson US Patent Pub. No.: 2003/0114184 in view of Read et al. US Patent No.: 5,890,052, hereinafter, 'Read' and further in view of Holtorf et al. US Patent No.: 7,251, 323 and further in view of Mendolia US Patent No.: 6,965,790

Consider **claim 23 and as applied to claim 20**, Wilson as modified by Read and further modified by Holtorf teaches both ends of the bendable member in the longitudinal direction are fixed to leading ends of bosses provided on the two housing portions, and the leading ends of the bosses have spherical shapes.

However, in analogous art, Mendolia teaches both ends of the bendable member in the longitudinal direction are fixed to leading ends of bosses provided on the two housing portions, and the leading ends of the bosses have spherical shapes(e.g., **circular bosses 33a and 33b**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Wilson as modified by Read and further modified by Holtorf to include both ends of the bendable member in the longitudinal direction are fixed to leading

Art Unit: 2617

ends of bosses provided on the two housing portions for the purpose of hinge connections as taught by Medolia.

Consider **claim 24 and as applied to claim 20**, Wilson as modified by Read and further modified by Holtorf teaches the claimed invention except wherein both ends of the bendable member in the longitudinal direction are fixed to leading ends of bosses provided on the two housing portions, and the leading ends of the bosses each have R portions opposite to each other.

However, in analogous art, Mendolia teaches wherein both ends of the bendable member in the longitudinal direction are fixed to leading ends of bosses provided on the two housing portions, and the leading ends of the bosses each have R portions opposite to each other (**e.g., semicircle shape from top or side view 33a and 33b**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Wilson as modified by Read and further modified by Holtorf to include wherein both ends of the bendable member in the longitudinal direction are fixed to leading ends of bosses provided on the two housing portions, and the leading ends of the bosses each have R portions opposite to each other for the purpose of hinge connections as taught by

Medolia.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES SHEDRICK whose telephone number is (571)272-8621. The examiner can normally be reached on Monday thru Friday 8:00AM-4:30PM.

Art Unit: 2617

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles Shedrick/
Examiner, Art Unit 2617